Joint Simulation System (JSIMS) Program Update
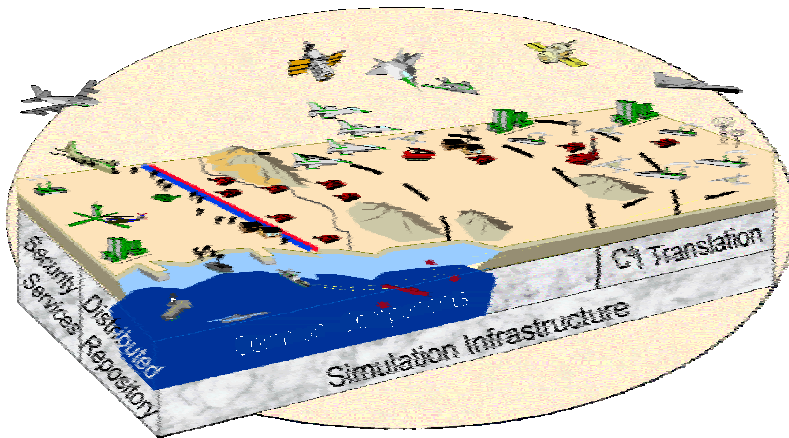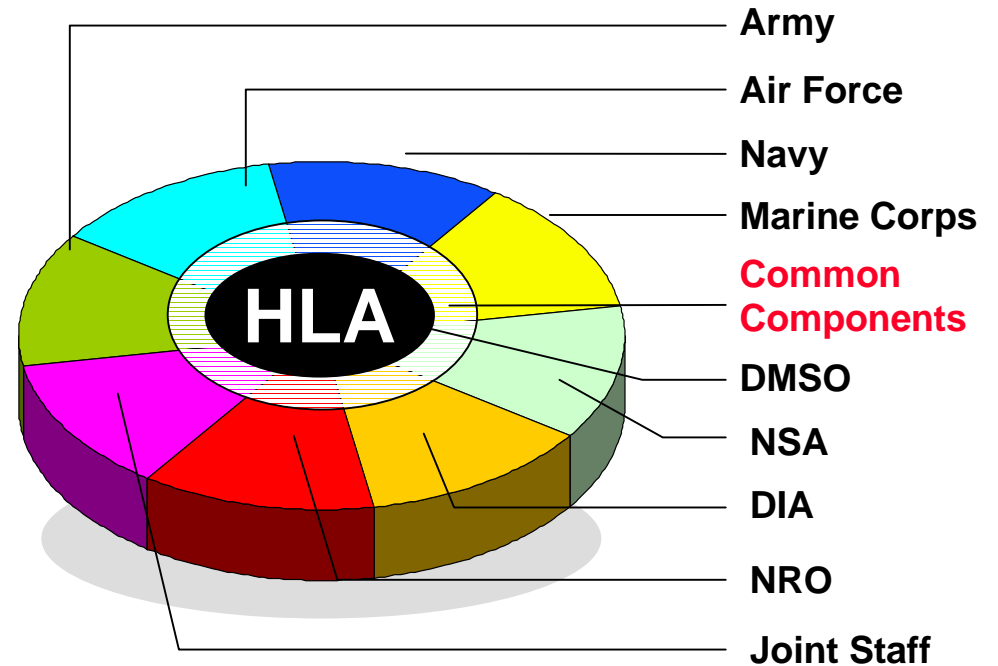
Ms Laura Knight
Senior Civilian Official

DMSO Industry Days
24 May 00

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What is JSIMS ?

Army
Air Force
Navy
Marine Corps
Common Components
DMSO
NSA
DIA
NRO
Joint Staff

HLA

A Joint, interoperable simulation

A collaborative effort of **nine** partner simulations

- **DoD's "flagship" modeling and simulation program for the warfighters**
  - **Replace outdated Service legacy systems**
  - **Real-world C4I systems … using common components**
  - **Distributed training … mission planning … mission rehearsal**
  - **Achieve the CJCS goal to "move more electrons and fewer troops"**

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History

- ## <u>Jun 94</u>: JSIMS program initiated
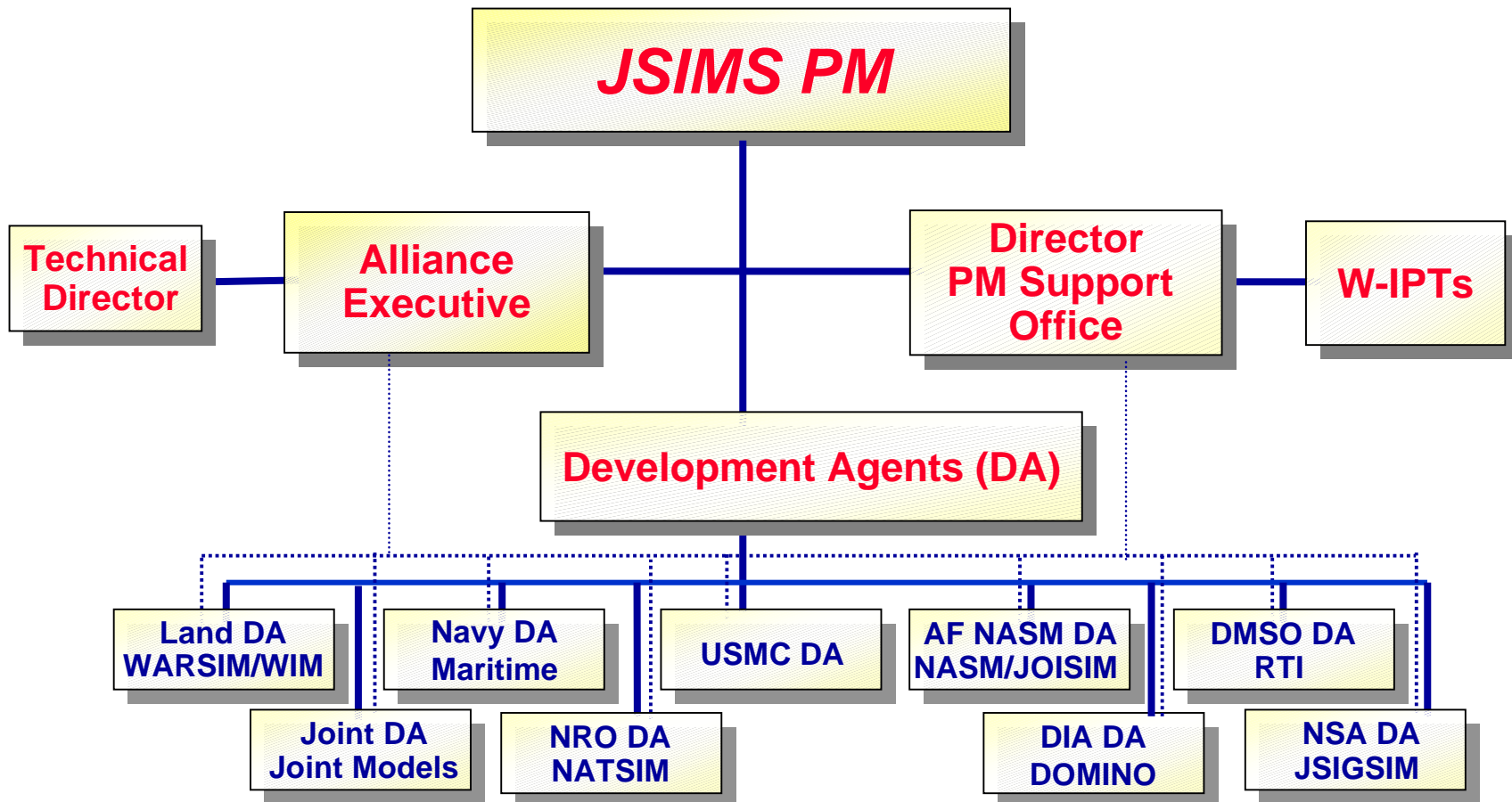 - Core significantly underfunded from the beginning ($60M)
  - Intelligence Agencies and Security not considered / included

- ## <u>Dec 96</u>: Revised MOA approved

- ## <u>Oct 99</u>: OSD Technical Review conclusion
  - Serious technical risks … management and funding problems

- ## <u>Nov 99</u>: DUSD(S&T) chaired a Senior Review Board
  - Made programmatic recommendations to USD(AT&L)

Recent events

- ## USD(AT&L) Acquisition Decision Memo (16 Dec 99)
  – **Designate JSIMS an ACAT 1D Program**

  – **Change PEO from Air Force to the Army**

  – **Transition to High Level Architecture (HLA)**

  – **Rebaseline the program and revise the MOA**

  – **Development Agents report to new PEO**

- ## Program rebaselined (Jan - Mar 00)
  – **Cost, schedule, and performance revised**

  – **OSD "executive" sessions 29 Mar 00 and 5 Apr 00**

  – **PDUSD(AT&L) briefed 7 Apr 00**

  – **PDUSD(AT&L) memo, 19 Apr 00**

    - **Directed FY 01-07 funding actions to " fully fund the program"**

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JSIMS Program Management Organization


```
                          ┌─────────────────┐
                          │    JSIMS PM     │
                          └────────┬────────┘
                                   │
  ┌───────────┐  ┌──────────┐      │      ┌──────────────┐  ┌────────┐
  │ Technical │──│ Alliance │──────┼──────│   Director   │──│ W-IPTs │
  │ Director  │  │Executive │      │      │ PM Support   │  └────────┘
  └───────────┘  └──────────┘      │      │   Office     │
                                   │      └──────────────┘
                        ┌──────────────────────┐
                        │ Development Agents (DA)│
                        └──────────────────────┘
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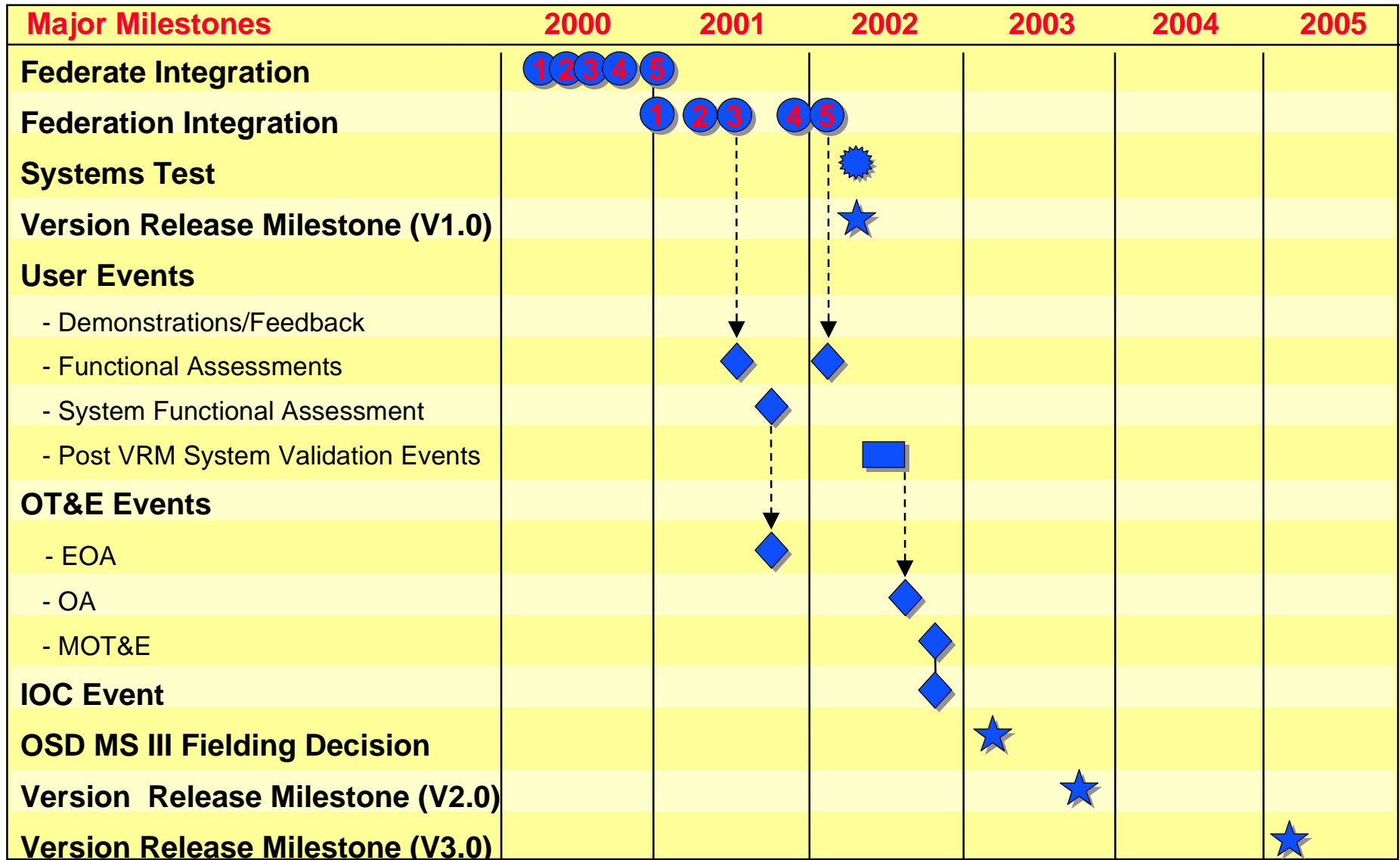| Land DA WARSIM/WIM | Navy DA Maritime | USMC DA | AF NASM DA NASM/JOISIM | DMSO DA RTI |
| Joint DA Joint Models | NRO DA NATSIM | | DIA DA DOMINO | NSA DA JSIGSIM |

Schedule

- ## IOC dates:

  - **Dec 99: established by original MOA ('94)**
  - **Apr 01: result of new APB/inadequate funding ('98)**
  - **Nov 02: delay of "core" infrastructure / inadequate funding**

- ## Mar 02: version release milestone (VRM) 1.0

  - **Software ready for Service / Agency use**

- ## Nov 02: JWFC conduct an initial Joint training event

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Master Schedule

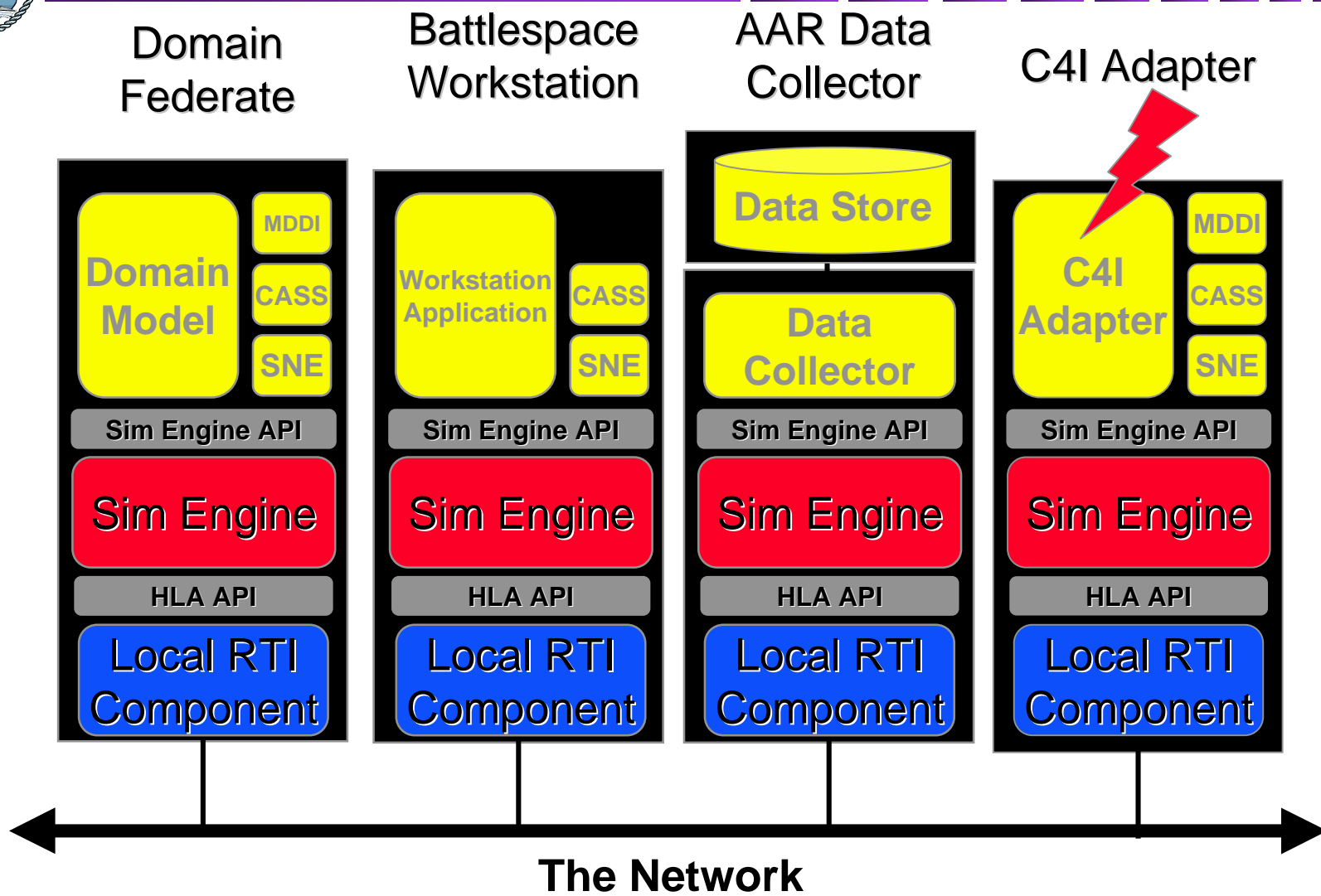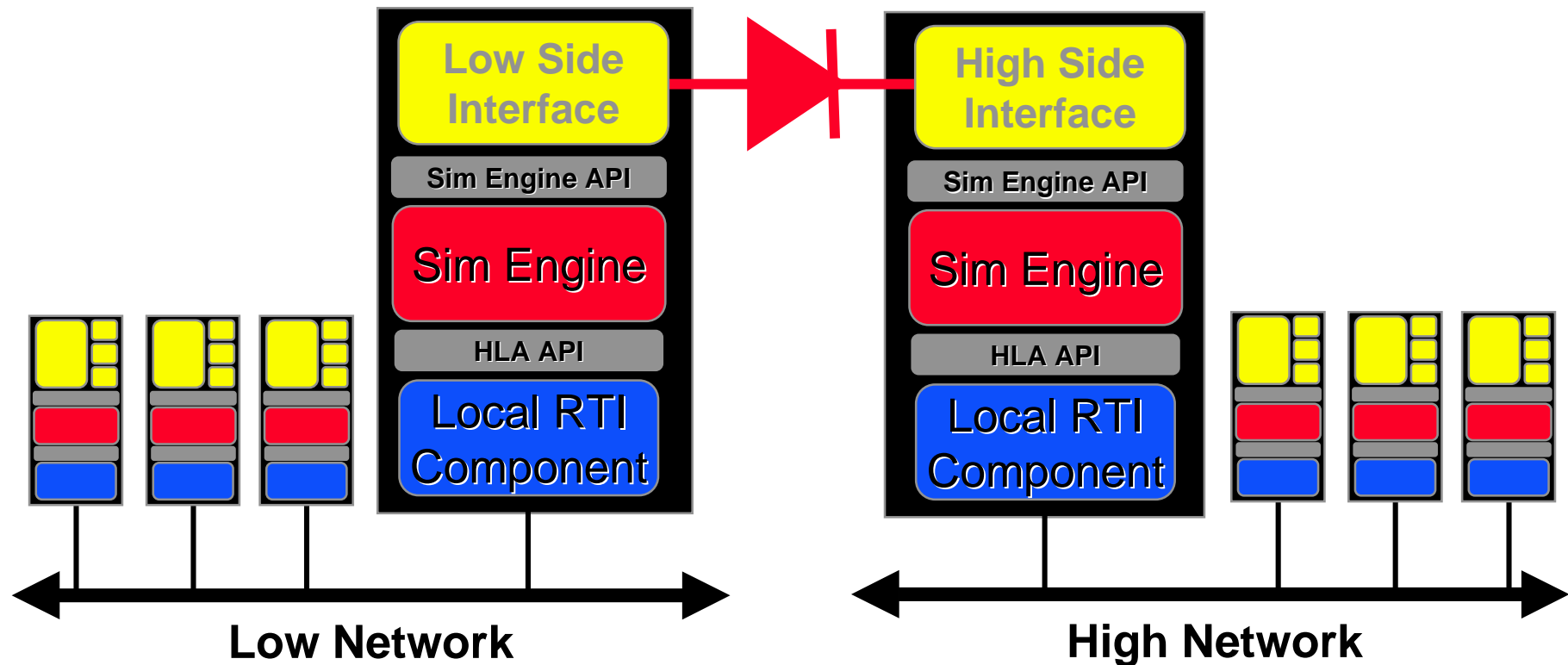| Major Milestones	2000	2001	2002	2003	2004	2005
Federate Integration	1 2 3 4 5					
Federation Integration		1 2 3	4 5			
Systems Test			✦			
Version Release Milestone (V1.0)			★			
User Events						
- Demonstrations/Feedback						
- Functional Assessments		◆	◆			
- System Functional Assessment		◆				
- Post VRM System Validation Events			▬			
OT&E Events						
- EOA		◆				
- OA			◆			
- MOT&E			◆			
IOC Event			◆			
OSD MS III Fielding Decision				★		
Version Release Milestone (V2.0)					★	
Version Release Milestone (V3.0)						★

Elements to achieve success

- **Partnership** and **trust** are absolutely essential

- **Integration** demonstrated in small steps
  - Solve problems early
  - Build users' and developers' confidence early … and often

- **Defense Modeling and Simulation Office**
  - Now a partner for developing High Level Architecture (HLA)
  - HLA is the key to success

- Basic **software fundamentals**
  - Data flow analyses … early prototyping … risk mitigation plan
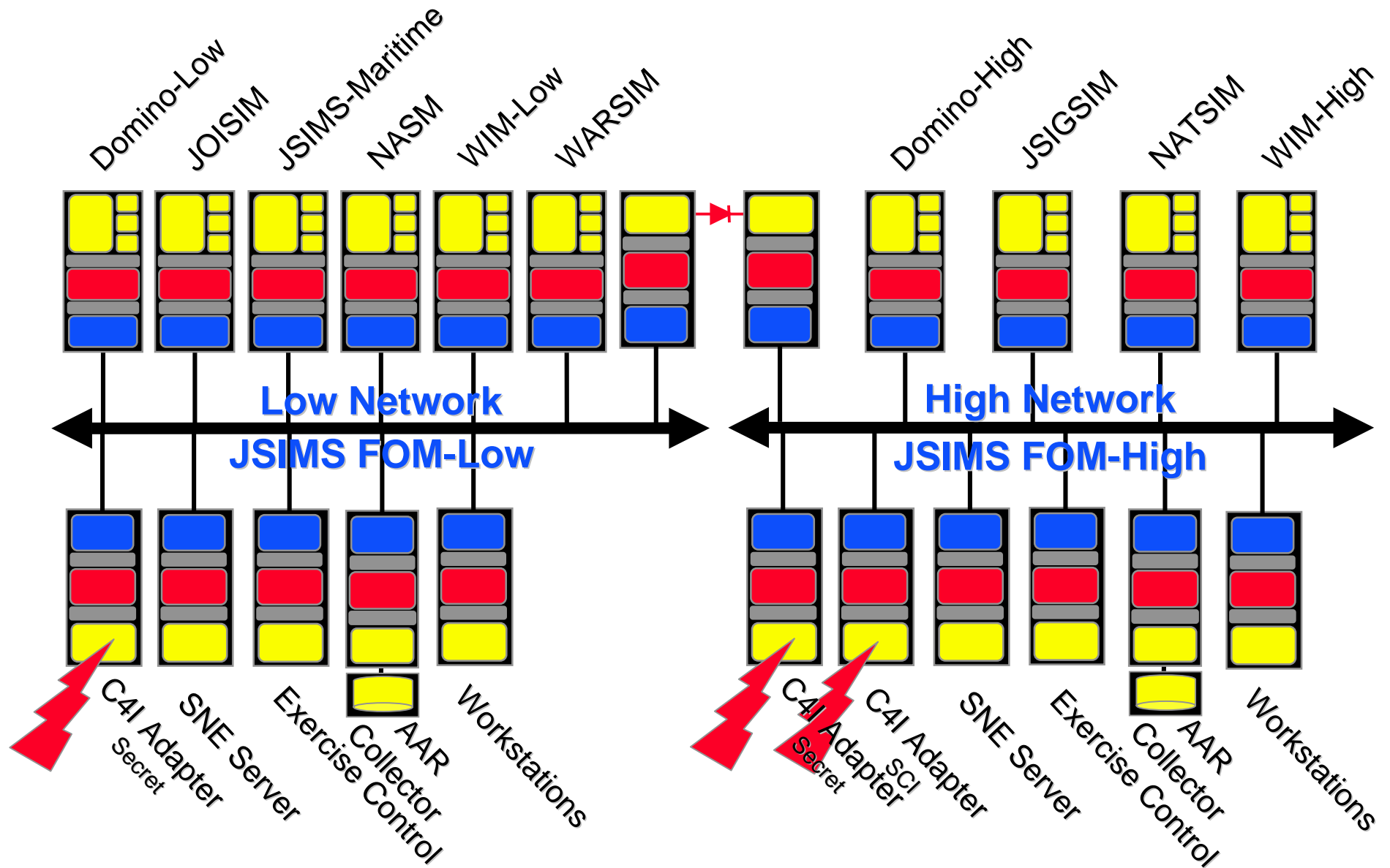
Major Federates and Their Parts

Domain Federate	Battlespace Workstation	AAR Data Collector	C4I Adapter

Domain Model	MDDI	Workstation Application	CASS	Data Store	C4I Adapter	MDDI

(diagram content)

Domain Federate

- Domain Model
- MDDI
- CASS
- SNE
- Sim Engine API
- Sim Engine
- HLA API
- Local RTI Component

Battlespace Workstation

- Workstation Application
- CASS
- SNE
- Sim Engine API
- Sim Engine
- HLA API
- Local RTI Component

AAR Data Collector

- Data Store
- Data Collector
- Sim Engine API
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C4I Adapter

- C4I Adapter
- MDDI
- CASS
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- HLA API
- Local RTI Component

The Network

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Security Federation Connector

Low Side Interface

Sim Engine API

Sim Engine

HLA API

Local RTI Component

High Side Interface

Sim Engine API

Sim Engine

HLA API

Local RTI Component

Low Network

High Network

Provides Low to High Transfer

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JSIMS

PEO assessment

- **Program is <u>executable</u> for Mar 02 version release <u>if</u>:**

  – <u>FY 01 Joint Staff UFR of $18.2M is resolved</u>

  – <u>Services / Agencies commit to fully funding their requirements</u>

  – OSD protects Service / Agency programs from programmatic cuts, withholds, taxes, etc.

  – All partners deliver their software components on time

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Discussion

Discussion

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